

Procedure 6.1 - Replacing the Lift Motor, Rotation Sensor or Magnet Hub

Note:

If you need to replace a lift motor that utilizes a hall effect rotation sensor, remove the magnet hub and rotation sensor bracket from the defective lift motor and mount them on the new lift motor. Unless the magnet and rotation sensor are defective, do not remove them from their mounting positions on the magnet hub and sensor bracket. Replacement lift motors are not furnished with the hall effect rotation sensor.

WARNING

Always turn off the circuit breaker and unplug the treadmill before you remove the treadmill hood.

Removing the Lift Motor

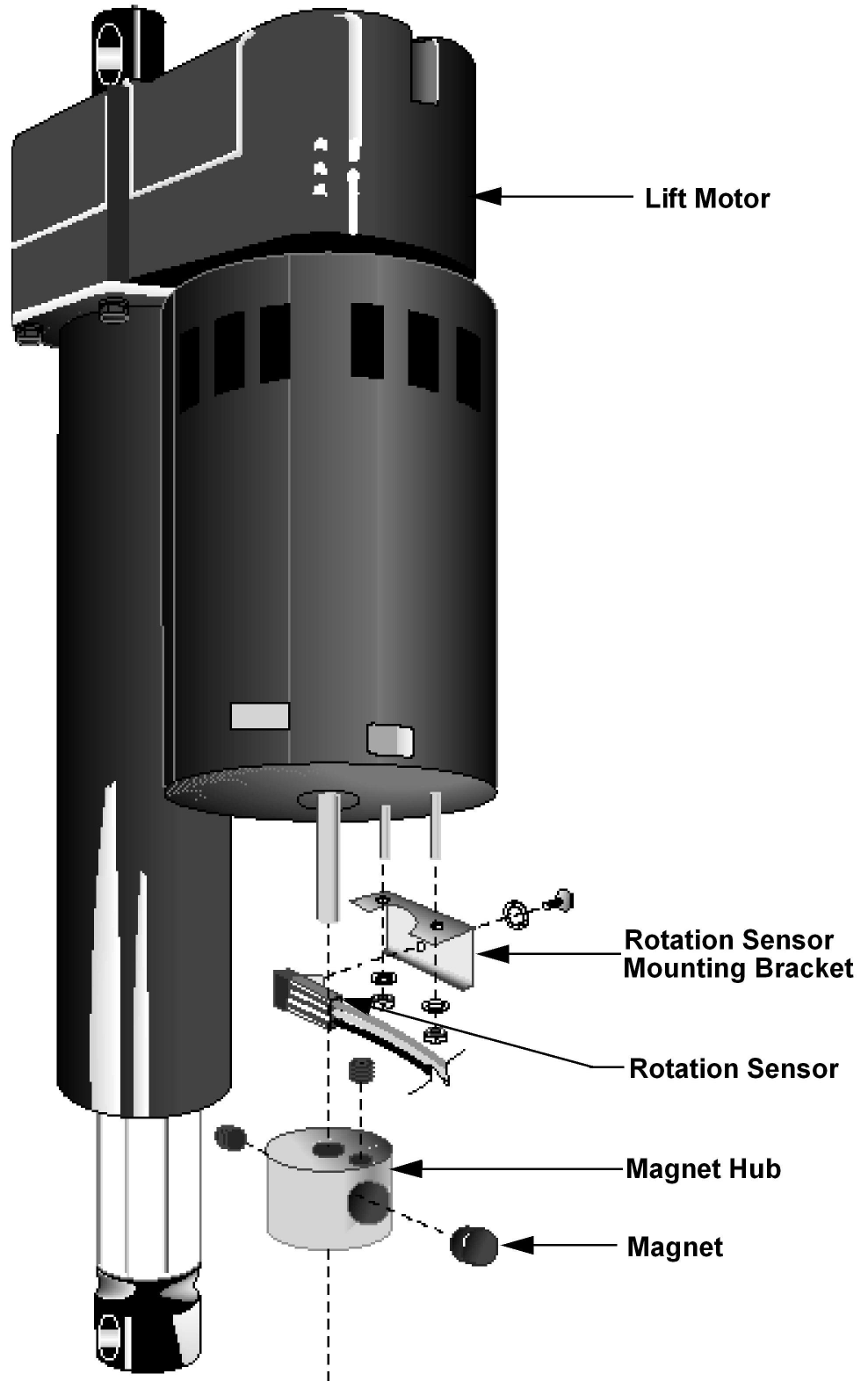
1. Remove the hood.
2. Remove the red lift motor lead from the lift motor capacitor, but leave the remaining red wire connected to the capacitor terminal.
3. Remove the black lift motor lead from the lift motor capacitor, but leave the remaining black wire connected to the capacitor terminal.
4. Disconnect the connector on the white lift motor lead.
5. If the treadmill does not have a rotation sensor (C962i or C964i), go to step 8.
6. Remove the revolution sensor plug from the J2 connector jack on the lower PCA.

Note:

When the revolution sensor wire assembly is disconnected from the lower PCA, the zero sense switch must be disconnected as well.

7. Disconnect the two blue wires on the rotation sensor wire assembly from the zero sense switch terminals.
8. Place the treadmill on its left side.
9. Remove the two shoulder screws and nuts that secure the lift motor to the treadmill frame and lift platform (see Diagram 6.1). Remove the lift motor and set it aside.
10. If the treadmill does not have a rotation sensor (C962i or C964i), go to step 25.
11. Remove the set screw that secures the magnet hub to the lift motor. Set aside the magnet hub.

Diagram 6.1 - Exploded view of the Lift Motor (with Rotation Sensor)



Replacing the Magnet

12. Remove the set screw that secures the magnet to the magnet hub. Discard the magnet.

Note:

When you position the magnet in the magnet hub, place the north pole towards the center of the magnet hub. The north pole of the magnet should be marked with a spot of white paint. If the magnet on the treadmill you are servicing is not marked, use either a compass or another magnet to determine the north pole.

13. Position a new magnet in the magnet hub.
14. Tighten the set screw that secures the magnet to the magnet hub.
15. If you are replacing the revolution sensor...

THEN...

Continue with the next step.

OTHERWISE...

Skip to Step 19.

16. Remove the screw and washer that secure the rotation sensor to the sensor bracket (see Diagram 6.1).
17. Position the revolution sensor at its mounting location.
18. Position the screw and washer that secure the rotation sensor to the sensor bracket. Torque the screw to 8 in-lbs.
19. If you are replacing the lift motor you removed earlier in this procedure...

THEN...

Continue with the next step.

OTHERWISE...

Skip to Step 25.

Removing and Replacing the Rotation Sensor Bracket

20. Remove the two nuts that secure the sensor bracket to the lift motor.
21. Position the sensor bracket removed in the previous step on the lift motor.
22. Replace the two nuts that secure the sensor bracket to the lift motor.
23. Position the magnet hub on the lift motor so that it is flush with the speed sensor bracket.
24. Replace the set screw that secures the magnet hub to the lift motor.

Replacing the Lift Motor

25. Extend the lift motor actuator 1/2".

Note:

To extend the lift motor actuator faster, place a screwdriver shaft in the lower mounting hole of the lift motor and rotate the lift motor tube.

26. Position the lift motor at its mounting location.

Note:

When you perform Step 27, replace the lower screw and nut first.

27. Replace the two shoulder screws and nuts that secure the lift motor to the treadmill frame.

Note:

The original nuts used to mount the lift motor are Kep nuts, which do not require a separate washer. If you do not use Kep nuts to mount the lift motor, use washers when you mount the lift motor to the treadmill frame.

28. Return the treadmill to an upright position.

29. Connect the black lift motor lead to the terminal of the lift motor capacitor that already has a black wire.

30. Connect the red lift motor lead to the terminal of the lift motor capacitor that already has a red wire.

31. Connect the connector on the white lift motor lead that connects the lift motor to pin 4 of lower PCA connector J3.

32. Connect the molex connector on the revolution sensor wire assembly to connector J2 on the lower PCA.

33. If the treadmill does not have a rotation sensor (C962i or C964i), go to step 36.

34. Connect the two blue wires on the revolution sensor wire assembly to the terminals on the zero sense switch terminals.

35. Calibrate the treadmill lift assembly as described in Procedure 4.1 of this appendix.

36. Check the operation of the treadmill as described in Section Three of this appendix, then replace the hood as described in Procedure 5.1 of the Commercial Treadmill Service Manual.